

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) An air dryer module, comprising:
a housing;
an air dryer mounted to the housing;
a purge reservoir mounted to the housing and communicating with the air dryer;
5 and
a port in said housing for communicating dried air from the air dryer to a service reservoir, a first portion of dried air passing from the air dryer to the purge reservoir, a second portion of the dried air passing from the air dryer to the service reservoir, and the first portion of the dried air not commingling with the second portion of the dried
10 air.
2. - 10. (Canceled)
11. (Previously Presented) The air dryer module as set forth in claim 1, further including:
a valve for controlling passage of the second portion of the dried air between the air dryer and the service reservoir.
12. (Previously Presented) The air dryer module as set forth in claim 11, wherein the valve is a protection valve.
13. (Previously Presented) The air dryer module as set forth in claim 11, wherein the valve is a check valve.
14. (Previously Presented) The air dryer module as set forth in claim 1, wherein the first portion of the dried air passes from the purge reservoir to the air dryer for regenerating a desiccant in the air dryer.

15. (Previously Presented) The air dryer module as set forth in claim 1, wherein the service reservoir is located remote from the housing.

16. (Previously Presented) The air dryer module as set forth in claim 15, wherein the service reservoir is located remote from the purge reservoir.

17. (Previously Presented) The air dryer module as set forth in claim 1, wherein:

the air dryer is mounted to a first side of the housing; and
the purge reservoir is mounted to a second side of the housing.

18. (Previously Presented) The air dryer module as set forth in claim 1, wherein the purge reservoir is independent of the air dryer.

19. (Previously Presented) The air dryer module as set forth in claim 1, wherein the first portion of the dried air passes from the air dryer to the purge reservoir before the second portion of the dried air passes from the air dryer to the service reservoir.

20. (Previously Presented) An air dryer module, comprising:
a housing;
an air dryer mounted to the housing; and
a purge volume mounted to the housing and in fluid communication with the air
5 dryer via the housing.

21. (Previously Presented) The air dryer module as set forth in claim 20, further comprising:

a first port in the housing for passing a first portion of dried air between the air
dryer and the purge volume; and

5 a second port in the housing for passing a second portion of the dried air
between the air dryer and a service reservoir, the first port being independent from the
second port.

22. (Previously Presented) The air dryer module as set forth in claim 21, wherein a first portion of dried air passes from the air dryer to the purge reservoir before a second portion of the dried air passes from the air dryer to the service reservoir, the first portion of the dried air being different from the second portion of the dried air.

23. (Previously Presented) The air dryer module as set forth in claim 21, wherein:

a first portion of dried air passes from the air dryer to the purge reservoir;

a second portion of the dried air passes from the air dryer to the service
5 reservoir; and

the first portion of the dried air is different from the second portion of the dried air.

24. (Previously Presented) The air dryer module as set forth in claim 21, wherein the first and second ports include respective connections.

25. (Previously Presented) The air dryer module as set forth in claim 21, wherein the purge reservoir is independent from the air dryer.

26. (Previously Presented) The air dryer module as set forth in claim 20, wherein:

the air dryer is mounted to a first side of the housing; and

the purge volume is mounted to a second side of the housing.

27. (Previously Presented) An air dryer module for use on a vehicle, comprising:

a housing;

an air dryer mounted to the housing;

5 a purge volume mounted to the housing and in fluid communication with the air dryer via the housing; and

a first port in said housing for communicating dried air from the air dryer to a purge volume, a second port in said housing for communicating dried air from the air

dryer to a service volume, a first portion of the dried air passing between the air dryer
10 and the purge volume via the first port, a second portion of the dried air passing
between the air dryer and the service volume via the second port, the first port being
independent from the second port.

28. (Previously Presented) The air dryer module as set forth in claim 27,
wherein the first and second ports include respective connections.

29. (Previously Presented) The air dryer module as set forth in claim 27,
wherein the first portion of the dried air is independent from the second portion of the
dried air.

30. (Previously Presented) The air dryer module as set forth in claim 27,
wherein the first portion of the dried air passes between the air dryer and the purge
volume before the second portion of the dried air passes between the air dryer and the
service volume.

31. (Previously Presented) The air dryer module as set forth in claim 27,
further including:

means for controlling passage of the second portion of the dried air.

32. (Previously Presented) The air dryer module as set forth in claim 31,
wherein the means for controlling includes a protection valve.

33. (Previously Presented) The air dryer module as set forth in claim 31,
wherein the means for controlling includes a purge valve.

34. (Previously Presented) The air dryer module as set forth in claim 27,
further including:

means for controlling passage of the first portion of the dried air, wherein the
means for controlling purges the air dryer by causing the first portion of the dried air to
5 pass from the purge volume to the air dryer.

35. (Previously Presented) The air dryer module as set forth in claim 34, wherein the means for controlling includes a purge valve.

36. (Previously Presented) The air dryer module as set forth in claim 34, wherein the service volume is located remote from the purge volume.

37. (Previously Presented) The air dryer module as set forth in claim 36, wherein the service volume is located remote from the air dryer.

38. (Previously Presented) A method for charging an air brake system and regenerating an air dryer, the method comprising:

providing a housing having a first side and a second side, an air dryer being mounted on the first side and a purge chamber being mounted on the second side;

5 passing first dried air from the air dryer to the purge chamber via a first passage in the housing;

passing second dried air from the air dryer to a service chamber, which is in fluid communication with the air dryer, via a second passage in the housing communicating with the air dryer and the service chamber, the first dried air not being
10 commingled with the second dried air; and

passing the first dried air from the purge chamber to the air dryer via the first passage.

39. (Previously Presented) The method for charging an air brake system and regenerating an air dryer as set forth in claim 38, wherein the step of passing the second dried air includes:

passing the second dried air through a protection valve.

40. (Previously Presented) The method for charging an air brake system and regenerating an air dryer as set forth in claim 38, further including:

causing the first dried air to pass from the purge chamber to the air dryer.

41. (Previously Presented) The method for charging an air brake system and regenerating an air dryer as set forth in claim 40, wherein the causing the first dried air to pass from the purge chamber to the air dryer includes:

passing the first dried air through a desiccant in the air dryer.

42. (Previously Presented) A compressed air reservoir, comprising:

a purge chamber;

a service chamber;

a baffle defining the purge and service chambers;

5 a first passageway for transmitting first dried compressed air between a dryer and the purge chamber; and

a second passageway for transmitting second dried compressed air between the dryer and the service chamber, the first dried compressed air being transmitted between the dryer and the purge chamber before the second dried compressed air is transmitted
10 between the dryer and the service chamber.

43. (Previously Presented) The compressed air reservoir as set forth in claim 42, further including:

a valve, which controls passage of the second dried compressed air between the dryer and the service chamber via the second passageway.

44. (Previously Presented) The compressed air reservoir as set forth in claim 43, wherein the valve is a protection valve.

45. (Previously Presented) The compressed air reservoir as set forth in claim 42, wherein the first dried compressed air in the purge chamber is transmitted to the dryer via the first passageway for regenerating a desiccant in the dryer.

46. (Previously Presented) The compressed air reservoir as set forth in claim 42, wherein the second passageway is a tube between the dryer and the service chamber.

47. (Previously Presented) The compressed air reservoir as set forth in claim 46, wherein the tube passes through the purge chamber.

48. (Previously Presented) The compressed air reservoir as set forth in claim 42, wherein a volume of the purge chamber is smaller than a volume of the service chamber.

49. (Previously Presented) A method for storing compressed air in a compressed air reservoir, the method comprising:

5 providing the compressed air reservoir including a purge chamber in fluid communication with an air dryer, a service chamber in fluid communication with the air dryer, and a baffle defining the purge and service chambers;

pressurizing the purge chamber with first dried compressed air from the air dryer; and

after the purge chamber is pressurized with the first dried compressed air, pressurizing the service chamber with second dried compressed air from the air dryer.

50. (Previously Presented) The method for storing compressed air as set forth in claim 49, further comprising:

depressurizing the purge chamber to regenerate the air dryer.

51. (Previously Presented) The method for storing compressed air as set forth in claim 50, wherein depressurizing the purge chamber includes:

transmitting the first dried compressed air from the purge chamber to the air dryer without commingling the first dried air and the second dried air.

52. (Previously Presented) The method for storing compressed air as set forth in claim 49, wherein pressurizing the service chamber includes:

controlling a valve between the service chamber and the air dryer.

53. (Previously Presented) The method for storing compressed air as set forth in claim 49, further including:

depressurizing the service chamber to operate a compressed air system.

54. (New) A compressed air reservoir, comprising:

a purge chamber;

a service chamber;

a baffle defining the purge and service chambers;

5 a first passageway for transmitting purge air between an air dryer and the purge chamber; and

a second passageway for transmitting service air between the air dryer and the service chamber, the purge air being dryer than the service air.

55. (New) The compressed air reservoir as set forth in claim 54, wherein the purge air is transmitted from the purge chamber to the air dryer for regenerating a drying agent in the air dryer.

56. (New) The compressed air reservoir as set forth in claim 54, wherein the purge air is transmitted to the purge chamber before the service air is transmitted to the service chamber.

57. (New) The compressed air reservoir as set forth in claim 54, wherein a volume of the purge chamber is smaller than a volume of the service chamber.

58. (New) The compressed air reservoir as set forth in claim 54, further including:

a valve which controls passage of the service air between the dryer and the service chamber via the second passageway.

59. (New) The compressed air reservoir as set forth in claim 58, wherein the valve is one of a check valve and a pressure protection valve.

60. (New) The compressed air reservoir as set forth in claim 54, further including:

a valve for directing the dryer air to the purge chamber.

61. (New) The compressed air reservoir as set forth in claim 60, wherein the valve is associated with the first and second passageways.

62. (New) A compressed air reservoir, comprising:

a purge chamber;

a service chamber;

a baffle defining the purge and service chambers;

5 a first passageway for transmitting purge air between an air dryer and the purge chamber; and

a second passageway for transmitting service air between the air dryer and the service chamber, the purge air being stored in the purge chamber before the service air is stored in the service chamber, the purge air stored in the purge chamber being used
10 for at least one of regenerating an associated air dryer and supplying air to the service chamber.

63. (New) A compressed air reservoir, comprising:

a purge chamber;

a service chamber;

a baffle defining the purge and service chambers;

5 a first passageway for transmitting purge air between an air dryer and the purge chamber; and

a second passageway for transmitting service air between the air dryer and the service chamber, the purge air pressurizing the purge chamber to a pressure for purging an associated air dryer before the service chamber is pressurized with the service air.

64. (New) A compressed air system, comprising:

a compressor for supplying compressed air;

an air dryer connected to receive compressed air from the air compressor, the dryer including a drying agent through which the compressed air flows for providing a
5 dry compressed air source; and

a reservoir including:

a purge section storing a purge portion of the dry compressed air; and

a service section for storing a service portion of the dry compressed air,
the purge portion of the dry compressed air being dryer than the service portion
10 of the dry compressed air.

65. (New) The compressed air system as set forth in claim 64, further including:

a second reservoir, the service portion of the dry compressed air being stored in both the service section and the second reservoir;

5 wherein during a first operating mode:

the purge and service portions of the dried compressed air are transmitted from the dryer to the purge and service sections, respectively; and

if a pressure in one of the service section and the second reservoir is below a predetermined level, the purge air is available to be transmitted from the
10 purge section to the other of the service section and the second reservoir.

66. (New) The compressed air system as set forth in claim 65, further including:

a first protection valve set as a function of the pressure in the service portion;
and

5 a second protection valve set as a function of the pressure in the second reservoir;

wherein if the pressure in one of the service section and the second reservoir is below the predetermined level, the purge air is available to be transmitted from the
purge section to the other of the service section and the second reservoir via the
10 respective first and second protection valve.

67. (New) The compressed air system as set forth in claim 65, wherein during a second operating mode:

the purge portion of the dried compressed air is transmitted from the purge section to the air dryer for regenerating the drying agent.

68. (New) The compressed air system as set forth in claim 64, wherein:

during one of a plurality of operating modes, the purge portion of the dried compressed air is transmitted from the purge section to the drying agent.

69. (New) The compressed air system as set forth in claim 68, wherein:

during another of the operating modes, the purge and service portions of the dried compressed air are transmitted from the dryer to the purge and service sections.

70. (New) A compressed air system, comprising:

a source of compressed air;

an air dryer connected to receive the compressed air; and

a reservoir including:

5 a purge volume storing a purge portion of the dry compressed air received from the dryer; and

a service volume for storing a service portion of the dry compressed air received from the dryer, the purge volume being in a fluid path between the air dryer and the service volume, and the purge portion of the dry compressed air
10 including the driest compressed air for regenerating the dryer.

71. (New) The compressed air system as set forth in claim 70, wherein during one of a plurality of operating modes, the dry compressed air is transmitted from the dryer to the purge and service volumes.

72. (New) The compressed air system as set forth in claim 71, wherein during the operating mode, the dry compressed air is available to be transmitted from the purge volume to the service volume if a pressure in the service volume is below a predetermined level.

73. (New) The compressed air system as set forth in claim 71, wherein during another one of the operating modes, the dry compressed air is transmitted from the purge volume to the air dryer.

74. (New) The compressed air system as set forth in claim 73, wherein during the other one of the operating modes, the dry compressed air is transmitted through a drying agent in the air dryer for regenerating the drying agent.

75. (New) The compressed air system as set forth in claim 70, wherein a volume of the service volume is greater than a volume of the purge volume.

76. (New) The compressed air system as set forth in claim 70, further including:

another reservoir for storing a part of the service portion of the dry compressed air received from the dryer, the purge volume being in a fluid path between the air dryer
5 and the other reservoir.

77. (New) The compressed air system as set forth in claim 76, wherein if a pressure level of at least one of the service volume and the other reservoir drops below a predetermined level, the purge portion of the dry compressed air is available to be transmitted to at least one of the service volume and the other reservoir as an additional
5 service portion of the dry compressed air.

78. (New) The compressed air system as set forth in claim 70, wherein the purge portion of the dry compressed air is dryer than the service portion of the dry compressed air.

79. (New) A method for controlling a compressed air system including a purge volume in fluid communication with an air dryer, a service volume in fluid communication with an air dryer, and a baffle defining the purge and service volumes, the purge volume being in a fluid path between the dryer and the service volume, the
5 method comprising:

pressurizing the purge volume with dried compressed air from the dryer; and
pressurizing the service volume with dried compressed air from the dryer, the air
in the purge volume being drier than the air in the service volume.

80. (New) The method for controlling a compressed air system as set forth
in claim 79, wherein the purge volume is pressurized before the service volume.

81. (New) The method for controlling a compressed air system as set forth
in claim 79, further including:

if a pressure level in the service volume is below a predetermined level, making
the dried compressed air in the purge volume available to be transmitted to the service
5 volume.

82. (New) The method for controlling a compressed air system as set forth
in claim 79, wherein the compressed air system also includes an additional reservoir in
fluid communication with the air dryer, the purge volume being in the fluid path
between the dryer and the additional reservoir, the method further including:

5 pressurizing the additional reservoir with dried compressed air from the dryer,
the air in the purge volume being drier than the air in the additional reservoir.

83. (New) The method for controlling a compressed air system as set forth
in claim 82, further including:

if a pressure level in at least one of the service volume and the additional
reservoir is below a predetermined level, making the dried compressed air in the purge
5 volume available to be transmitted to at least one of the service volume and the
additional reservoir.

84. (New) The method for controlling a compressed air system as set forth
in claim 79, further including:

depressurizing the purge volume for regenerating the air dryer.

85. (New) A method for controlling a compressed air system including a
purge volume in fluid communication with an air dryer, a service volume in fluid

communication with an air dryer, and a baffle defining the purge and service chambers, the method comprising:

- 5 pressurizing the purge volume with dried compressed air from the dryer; and
 after the purge volume is pressurized with the dried compressed air, pressurizing the service volume with dried compressed air from the dryer.

86. (New) The method for controlling a compressed air system as set forth in claim 85, wherein pressurizing the purge volume includes:

transmitting the driest air from the dryer to the purge volume.

87. (New) The method for controlling a compressed air system as set forth in claim 85, further including:

depressurizing the purge volume to regenerate the air dryer.

88. (New) The method for controlling a compressed air system as set forth in claim 85, further including:

if a pressure level of the service volume is below a predetermined level, depressurizing the purge volume for increasing the pressure level of the service volume.